

Application No. 09/574,472
Amdt. dated October 4, 2004
Reply to Office Action of July 13, 2004

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A method for automatically estimating the subjective quality of a signal carried over a transmission path and presented at a user interface comprising the steps of:

(a) at periodic intervals monitoring the transmission path used to carry said signal and at each of said monitoring intervals;

(b) determining the value[[s]] of at least one or more impairment factor[[s]] and for each set of values so obtained estimating the effect that said impairment factor[[s]] [[have]] has on the subjective or perceptual quality of said signal; [[and]]

(c) determining [[the]] an estimated subjective quality of said signal by combining the estimated effects of ~~each of~~ said impairment factor[[s]]; and

(d) reducing the value of a counter if said ~~combined~~ estimated subjective quality is below the value of said counter or increasing the value of said counter if said ~~combined~~ estimated subjective quality is above the value of said counter.

2. (currently amended) A method as defined in claim 1 further characterized in that said signal is selected from the [[set]] group consisting of digitized voice, digitized audio and digitized video signal.

3. (original) A method as defined in claim 1 further characterized in that one of said impairment factors is the response time between a request being sent from said user interface to a server and a response being received from said server.

4. (original) A method as defined in claim 2 further characterized in that said increasing in value of said counter is performed in increments which are a function of the

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difference between said estimated subjective quality and the average value of said estimated subjective quality.

5. (original) A method as defined in claim 3 further characterized in that said increasing in value of said counter is performed in increments which are a function of the difference between said estimated subjective quality and the average value of said estimated subjective quality.

6. (currently amended) A method for automatically estimating the subjective quality of a signal carried over a transmission path and presented at a user interface comprising the steps of:

(a) monitoring the transmission path used to carry said signal at periodic intervals and at each of said monitoring intervals determining the value[[s]] of at least one or more transmission impairment factor[[s]] and a time reference and storing said values and time references in sets for later processing;

(b) retrieving said sets of stored values and for each set

(i) estimating the effect that each member of said set has on the subjective or perceptual quality of said signal; [[and]]

(ii) determining [[the]] an estimated subjective quality of said signal by combining the estimated effects of each member of said set; and

(iii) reducing the value of a counter if said estimated subjective quality is below the value of said counter or increasing the value of said counter if said estimated subjective quality is above the value of said counter.

7. (currently amended) A method as defined in claim 6 further characterized in that said signal is selected from the [[set]] group consisting of digitized voice, digitized audio and digitized video signal.

8. (original) A method as defined in claim 6 further characterized in that ~~one of~~ said impairment factor[[s]] is the response time between a request being sent from said user interface to a server and a response being received from said server.

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9. (original) A method as defined in claim 7 further characterized in that said increasing in value of said counter is performed in increments which are a function of the difference between said estimated subjective quality and the average value of said estimated subjective quality.

10. (original) A method as defined in claim 8 further characterized in that said increasing in value of said counter is performed in increments which are a function of the difference between said estimated subjective quality and the average value of said estimated subjective quality.

11. (currently amended) A method for automatically estimating the subjective quality of a signal comprising the steps of:

(a) periodically monitoring the transmission path used to carry said signal and determining the value[[s]] of at least one or more transmission impairment factor[[s]] and for each set of values so obtained estimating the effect that said impairment factor[[s]] [[have]] has on the subjective or perceptual quality of said signal; [[and]]

(b) determining [[the]] an estimated subjective quality of said signal at each of said periodic monitoring times by combining the estimated effects of each of said impairment factor[[s]]; [[and]]

(c) [[((a))]] multiplying each of said estimated subjective effects by a factor which is a function of the time difference between said monitoring time and a reference time for which a weighted total subjective quality is being determined; and

(d) [[((b))]] determining an estimated weighted total subjective quality by summing the set of said subjective quality estimates.

12. (currently amended) A method as defined in claim 11 further characterized in that said signal is selected from the [[set]] group consisting of digitized voice, digitized audio and digitized video signal.

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13. (original) A method as defined in claim 11 further characterized in that ~~one of~~ said impairment factor[[s]] is the response time between a request being sent from said user interface to a server and a response being received from said server.